DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001784 Address: 333 Burma Road **Date Inspected:** 12-Mar-2008

City: Oakland, CA 94607

OSM Arrival Time: 1800 **Project Name:** SAS Superstructure **OSM Departure Time:** 730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

CWI Name: CWI Present: Yes No Wu Ming Kai **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG, Tower

Summary of Items Observed:

Bay 3 Side Plates

This Quality Assurance (QA) Inspector arrived at ZPMC for visual inspection of box girder components for the SAS bridge section. The items observed were the welding of side plate number SP521-001 and SP006-01. ZPMC welding personnel was observed as applying fillet welds for SP521-001 for welds 9, 10 and 21, 22 under Welding Procedure Specification (WPS) number WPS-B-T-2132-3 using an automatic gantry system for Flux Cored Arc Welding (FCAW) process. QC/CWI Wu Ming Kai was observed as being present for ZPMC to monitor the welding progress and essential variables associated with the FCAW. This QA inspector verified the average parameters between all 4 units as follows; 298.5 amps, 30.5 volts and a travel speed of 436 mm/min. This appeared to be within the tolerances of the above noted WPS and the general requirements of the contract documents.

Bay 4 Diaphragm plate splice

While continuing with this QA inspector observation it was noted in bay 4 that ZPMC was continuing the process of welding diaphragm number SA27 splice connection using Submerged Arc Welding (SAW) process under WPS-SSD1-SA27 A/B-1B. ZPMC welding personnel Jiang Jingteng ID number 046830 was observed performing the SAW process with welding parameters verified by this QA inspector with the following; 622 amps, 30 volts and a travel speed of 493mm/min which was within the requirements of the above referenced WPS. Preheat was observed as being monitored by ZPMC QC/CWI inspector with temperature indicating markers to be within 180°c and 230°c. Also noted was the next diaphragm plate to be welded which is plates P549(s) to SA335(s) was fit up which appeared to be within the tolerances of the WPS noted. ZPMC personnel informed this QA inspector that ZPMC would be tack welding the component during the next shift. See digital photo for joint fit up. The work above appeared to be within the general requirements of the contract documents.

WELDING INSPECTION REPORT

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Summary of Conversations:

As noted in content above

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Hager,Craig	QA Reviewer